

Agriculture and International Labor Flows

By Philip Martin

Wage and salary workers account for two-thirds of average employment in U.S. agriculture, which has 2.3 million full-time equivalent jobs. Hired farm workers are concentrated in three interrelated ways: by commodity, area, and size of farm. Two-thirds of the farm wages covered by unemployment insurance are paid to workers employed by five of 20-plus North American Industry Classification System (NAICS) sectors: crop support services, fruits and nuts, greenhouses and nurseries, dairies, and vegetable farms.

About 70 percent of hired crop workers employed on U.S. farms were born in Mexico, and 70 percent of these Mexican-born workers are unauthorized, making half of the crop workforce unauthorized. Crop workers are aging and settling; the flexible fresh blood in the crop workforce are H-2A guest workers, over 90 percent of whom are from Mexico.

As labor costs rise, farm employers are adopting “4-S” strategies: *satisfy* current workers to retain them, *stretch* workers with mechanical aids that increase their productivity, *substitute* machines for workers or switch to less labor-intensive crops, and *supplement* current workers with H-2A guest workers. Satisfy and stretch are shorter-term strategies, while substitute and supplement are longer-term options. Produce buyers can also buy abroad, setting up a race between imports, machines, and guest workers as sources of labor-intensive commodities.

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Farm-related businesses often hire workers similar to farm workers—that is, immigrants with few other U.S. job options. However, workers in food processing are more diverse, including a significant share of refugees in meatpacking. Agriculture and farm-related industries usually offer jobs rather than careers, explaining why many employers have expressed more interest in recruiting new workers than in trying to retain current employees.

I. International Migration

The number of international migrants—persons living outside their country of birth for at least a year—more than doubled from 1980 to 2015 from 103 million to 244 million. As of 2015, international migrants make up 3.3 percent of the world’s people (United Nations Department of Economic and Social Affairs 2015). The number of international migrants is projected to increase faster than the world’s population. By 2050, when there are projected to be almost 10 billion people, there could be 400 million international migrants, equivalent to the world’s fifth-most populous country (Evans 2010).

Most people do not migrate, and those who cross national borders typically move only a short distance. This means that regional migration systems are more important than global migration systems, as most people move between neighboring countries. The largest migration corridor is from Mexico to the United States, which involves 12 million people, or 10 percent of people born in Mexico. Other significant corridors involve 3 to 4 million people moving from Russia to Ukraine, from Bangladesh to India, and from Ukraine to Russia. The Russia-Ukraine corridor highlights the importance of two-way migration flows: slightly more Russians moved to Ukraine than Ukrainians to Russia (World Bank 2016).¹

International migration patterns can be examined in many ways, including whether the sending and receiving countries are developing or industrial (with a per capita income of \$13,000 or more in 2015). Some 58 percent of international migrants in 2015 were in industrial countries that have a sixth of the world’s people, including 85 million people from developing countries (Table 1). Another 55 million migrants moved from one industrial country to another, as from Canada to the United States. Some 90 million people moved from one developing country to

Table 1
International Migration 2015

Origin	Destination		
	Industrial (millions)	Developing (millions)	Total (millions)
Industrial	55.5	13.2	68.7
Developing	85	90	175
Total	140.5	103.2	243.7
Origin	Shares (percent)		
	Industrial	Developing	Total
Industrial	23	5	28
Developing	35	37	72
Total	58	42	100

Source: United Nations Department of Economic and Social Affairs (UN DESA) 2015.

another, as from Bangladesh to Malaysia or Nicaragua to Costa Rica. And 13 million people moved from an industrial country to a developing country.

North America, which includes Canada and the United States, has 5 percent of the world's people and 22 percent (54 million) of the world's international migrants. Canada has one of the highest *shares* of foreign-born residents at 20 percent, while the United States has the *most* international migrants at 44 million; 14 percent of U.S. residents are international migrants.

Canada and the United States are traditional countries of immigration with systems to select settlers. Most Canadian immigrants are admitted after one member of the family achieves enough points for education, knowledge of English or French, and having a Canadian job offer, while most U.S. immigrants are sponsored by U.S.-based relatives. Many economists as well as President Donald Trump have urged the United States to adopt a Canadian-style points- or merit-based selection system that favors skilled workers over family members (Orrenius and Zavaodny 2010). The United States has the most unauthorized migrants of any country, over 11 million in 2016.

Migration is sometimes called international flow without a global governance regime. By comparison, global cooperation led the World Trade Organization to reduce barriers to cross-border flows of goods and capital. Migration's "missing regime" means that United Nations (UN)

agencies such as the International Labor Organization (ILO) and the UN High Commissioner for Refugees (HCR) set out global norms for workers who cross borders and refugees fleeing persecution but do not advise governments on how many migrants to send abroad or accept.

The ILO, for example, does not seek to reduce barriers to labor migration. Instead, the ILO aims to ensure migrant workers are treated the same as local workers. The UN HCR cares for people outside their country of citizenship who face persecution due to “race, religion, nationality, membership of a particular social group or political opinion.” Many migrants cross borders and apply for asylum, as with the million who moved to Germany in 2015, and the UN HCR and governments determine whether these applicants for asylum are, in fact, refugees.

One reason that UN agencies focus on conditions for migrants rather than the number of migrants is that a key element of national sovereignty is determining who can enter and what noncitizens may do within national borders. Governments have been more willing to allow UN agencies to set standards for the treatment of international migrants than to yield sovereignty over decisions about who can enter their countries. The stalled Doha round of General Agreement on Trade in Services (GATS) negotiations failed to reduce barriers to service-worker movements, as industrial countries rejected proposals made by developing countries to facilitate the entry of migrant service providers.²

Most migrants move to neighboring countries or remain within a regional grouping of countries, as from Mexico to the United States or within the 27-member European Union, explaining why most migration flows are regulated unilaterally, bilaterally, or regionally. The most common migration policy is unilateral, as when governments decide how to respond to employers who request permission to recruit and employ guest workers. Some labor flows are regulated bilaterally, as with the Canada-Mexico Seasonal Agricultural Worker Program, and some regional agreements permit the free movement of workers within a region, as with the European Union.

The arrival of over a million asylum seekers in Europe in 2015 and an upsurge in Central American women and children seeking asylum in the United States prompted global leaders in September 2016 to propose a Global Compact for “safe, orderly, and regular” Migration (GCM) that includes common principles to strengthen the global

governance of migration and to promote the positive contributions of migrants (see Rural Migration News 2017).

A draft GCM, expected to be signed by world leaders in Morocco in December 2018, has 23 recommendations, including two on labor migration. GCM recommendation five calls on governments to open “regular pathways” to migrant workers that reflect “demographic and global labour market realities” by developing model labor mobility agreements by sector, such as for agriculture and hotels, and allowing migrant workers to arrive with their families. Recommendation six calls for fair and ethical recruitment, including prohibiting recruiters from charging fees to migrant workers and enforcing expansive joint liability so that firms using contractors to bring migrants into workplaces are jointly liable for any labor law violations. Finally, the draft GCM asserts migrant guest workers should be able to change employers to escape exploitative employers, but it does not discuss whether employers who paid all of the costs of the migrant workers they bring into a country would be compensated if their employees changed employers.

The United States withdrew from the GCM negotiations in December 2017, saying the negotiations were “inconsistent with U.S. immigration and refugee policies and the Trump Administration’s immigration principles.” Many other migrant-receiving countries are likely to reject the GCM’s approach, which calls on governments to admit immigrants entitled to settle rather than guest workers expected to leave when their contracts end.³

II. Agricultural Employment

There is no comprehensive measure of employment on U.S. farms. The Bureau of Labor Statistics (BLS) projects stable average employment of 1.5 million wage and salary workers in U.S. agriculture between 2016 and 2026, while self-employed farm operators and family members are projected to drop slightly from 850,000 to 828,000 (Table 2). Wage and salary employment rose 23 percent from 2006 to 2016, from 1.2 million to 1.5 million, reflecting the concentration of farm production on fewer and larger farms that rely more on hired workers and expanded production of labor-intensive commodities such as strawberries.

Table 2
Agricultural Sector Employment, 2006–26

Sector	2006 (thousands)	2016 (thousands)	2026 (thousands)	Change, 2006–16 (percent)	Change, 2016–26 (percent)
Ag wage and salary	1,219	1,501	1,518	23	1
Ag self-employed	893	850	828	-5	-3
Total ag	2,112	2,351	2,346	11	0
Hired share (percent)	58	64	65		

Source: U.S. Bureau of Labor Statistics.

There are several other measures of average hired farm worker employment. The National Agricultural Statistics Service (NASS) from the U.S. Department of Agriculture (USDA) reports an average 730,000 farm workers hired in the United States in 2016, 22 percent of whom were hired in California, down from 750,000 in 2006, 21 percent of whom were hired in California. NASS excludes agricultural service workers brought to farms by farm labor contractors (FLCs) and other nonfarm employers. According to the BLS's Quarterly Census of Employment and Wages (QCEW), more workers in California are brought to farms by nonfarm crop support services (an average 215,000 workers in 2016) than are hired directly by crop farmers (an average 173,000 workers in 2016).⁴

The QCEW reports employment and wages paid to workers covered by unemployment insurance (UI). The BLS estimates that 81 percent of all hired workers on farms were covered in 2016. QCEW data show farm worker employment rose almost 20 percent from 2006 to 2016, reflecting both the expanded production of berries, cherries, and other labor-intensive commodities and more large-farm employers that satisfy the federal 10/20 rule requiring them to enroll in the unemployment insurance system.⁵

For example, average UI-covered employment in Wisconsin dairies rose 87 percent from 2006 to 2016, from 7,600 to 14,200. The number of dairy cows was stable at 1.2 million over the decade, but the number of Wisconsin dairies rose from 700 to 1,100, reflecting fewer and larger dairies in the state. In California, the number of dairy cows was stable at 1.9 million over the decade, though the number of dairy establishments fell from 1,600 to 1,200, and hired worker employment rose slightly from 17,600 to 18,000.

These average employment data are *not* a count of unique farm workers. Due to seasonality and turnover, there are more farm workers than average or full-time equivalent jobs. California extracted all Social Security numbers reported by agricultural employers and found that 848,000 unique workers filled the state's average 421,300 agricultural jobs in 2015, two workers per year-round equivalent job (Martin, Hooker, and Stockton 2017). Earlier studies found an average three workers per year-round equivalent job. The reduction from three to two workers per job reflects longer seasons in many crops and reduced flows of workers into and out of the farm workforce.

QCEW data consider a year-round job to be 52 weeks at 40 hours a week or 2,080 hours a year. Analysts divide total wages by average jobs during the four reference weeks of each year to obtain an average annual wage for California farm workers of \$30,300 or \$14.55 an hour for all of those employed on farms, including hired managers, supervisors, and field and livestock workers.

However, most farm workers are not employed full time and thus earn less, making headlines that suggest average earnings for field and livestock workers are \$15 an hour and \$30,000 a year misleading (Kitroeff and Mohan 2017). California took all Social Security numbers reported by agricultural employers and assigned farm workers who had more than one job to the NAICS or commodity in which they had their highest earnings (Table 3).⁶ The average earnings of the 705,000 primary farm workers, those whose highest earnings from all jobs were in agriculture, were \$17,400 in 2015—57 percent of the \$30,300 average of all persons with at least one agricultural job. Although hours of work data are not collected, the fact that primary farm workers earn less than \$30,300 reflects a combination of wages lower than \$14.55 an hour and fewer than 2,080 hours of work.

Primary farm workers whose maximum earnings were in cattle or dairy had average wages that were 85 percent of what a year-round worker would have earned. However, those employed by farm labor contractors (FLCs), the largest employment category, earned 44 percent of what a year-round worker would have earned, less than \$10,000. The commodities with the most workers, FLCs and fruits and nuts, had workers with the largest gaps between what a year-round worker would have earned and what the average worker actually earned (Martin, Hooker,

Table 3
California Primary Worker Average Annual Earnings, 2015

Commodity	Number of primary workers	Primary worker earnings (millions of U.S. dollars)	Average primary worker earnings (U.S. dollars)	Average primary / average FTE earnings (percent)
Agriculture, forestry, fish	705,000	12,288	17,434	58
Crop production	260,000	5,554	21,467	66
Vegetables and melons	48,500	1,232	25,818	68
Fruits and nuts	154,000	2,850	17,008	57
Greenhouse	32,700	981	30,007	84
Other crops	18,000	452	25,117	68
Animal production	32,700	983	30,061	86
Cattle and ranch	25,800	789	30,389	85
Dairy cattle	20,234	614,889	30,389	87
Support activities for agriculture and forestry	408,670	5,602	13,709	50
Support activities for crop production	403,000	5,440	13,498	50
Soil prep	17,900	358	19,971	53
Postharvest crop activities	62,310	1,549	24,859	65
FLCs	293,900	2,903	9,878	44
Farm management services	16,800	407	24,307	66

Source: Martin, Hooker, and Stockton (2017).

and Stockton 2017). About 10 percent of workers whose maximum earnings were in California agriculture in 2015 earned 85 percent or more of what a year-round worker would have earned.

The QCEW provides commodity- and county-specific data on farm employment and wages, and QCEW data have been used to determine whether changes in average wages indicate labor shortages. Hertz and Zahniser (2013) find evidence of possible farm labor shortages in some commodities and counties.

III. Hired Farm Workers

Several data sources provide partial pictures of the characteristics and earnings of farm workers, making farm worker demographics akin to a room of unknown size and shape, with each data source analogous to a window into the room. Some windows are large and clear, while others are small and clouded, making it hard to draw an accurate portrait of the people who work for wages on U.S. farms.

The National Agricultural Workers Survey (NAWS) provides the most comprehensive data, but it does not interview H-2A guest workers or livestock workers.⁷ The NAWS finds that 70 percent of U.S. and 85 percent of California crop workers were born in Mexico, usually in the west central states of Jalisco, Guanajuato, and Michoacán. These Mexican-born workers are aging and settling, with an average age of 39 compared with the median age of all U.S. workers, 42. NAWS crop workers have, on average, 15 years of U.S. farm work experience, and many are reaching the age at which workers traditionally move out of heavy hand-harvest jobs such as picking fruit from ladders.

Most crop workers live with their families in one place—that is, most are not migrants who follow the ripening crops, which explains why three-fourths of crop workers have just one farm employer during the year. The families of crop workers usually include children who are U.S. citizens, and over half of NAWS families receive some form of public assistance. The NAWS interviews mostly semiskilled equipment operators, irrigators, and other workers involved in nonharvest tasks; fewer than 20 percent of the interviewees were in harvesting jobs. Aging and settling crop workers average 35 weeks of work a year, and one-fourth have at least one nonfarm job.

Foreign-born newcomers have been the flexible fresh blood in the farm workforce over the past two decades. Unauthorized newcomers from rural Mexico, who made up over 20 percent of the NAWS sample in 2000, were willing to move to labor-short areas and fill vacant jobs. These newcomers now make up only 1 percent of the NAWS sample, and the decline in newcomers helps to explain why less than 5 percent of NAWS workers have at least two farm jobs 75 miles apart.

The United States apprehends about 1,000 foreigners a day just inside the Mexico-U.S. border: 304,000 in fiscal year 2017, down from 530,000 in fiscal year 2016.⁸ Many of those apprehended have paid \$5,000 or more to smugglers and, if they elude the Border Patrol and enter the United States, are unlikely to seek seasonal farm jobs. This means that the 2007–09 recession may have marked the end of the era of abundant and flexible unauthorized Mexican farm workers. Today's newcomers to farm work are mostly authorized Mexican workers with H-2A visas that tie them to a particular employer and job.

Other data paint different pictures of farm workers. The Current Population Survey (CPS) estimates average U.S. hired worker

employment at 787,000 in 2012, one-third of whom work in California. The CPS reports an average 676,000 farm laborers and field supervisors: over 80 percent of these workers are male with a median age of 34, one-half are Hispanic, 45 percent are foreign-born, 60 percent are U.S. citizens, one-half are married, and one-third have less than a ninth grade education. In other words, CPS data suggest a younger, better educated, and less Hispanic farm workforce than is reported in the NAWS.

IV. 4-S Responses

Farm employers are adjusting to the arrival of fewer unauthorized Mexican newcomers with 4-S strategies: satisfying current workers, stretching them with mechanical aids that increase productivity, substituting machines for workers where possible and switching to less labor-intensive crops, and supplementing current workforces with H-2A guest workers. Satisfying and stretching are short-term responses, while mechanization, crop switching, guest workers, and imports are longer-term responses.

Most farmers believe that the supply of labor inside U.S. borders is fixed or inelastic, so that higher wages shuffle workers between farms rather than attracting more U.S. workers into farm work. This belief prompts some farmers to offer benefits and bonuses to satisfy current workers to retain them. Surveys find that many workers resent being seen as interchangeable members of crews that can range from 20 to 60 workers, with crew leaders favoring some workers over others and harassing some women. Training first-level supervisors and developing mechanisms to reduce favoritism and harassment may satisfy current workers and keep them on one farm longer.

Stretching workers means increasing their productivity. Most fruits and vegetables are over 90 percent water, and workers spend much of their time carrying harvested produce down ladders to bins or to the end of rows to receive credit for their work. Three major changes could increase worker productivity. Management changes include better scheduling and coordination between sales and production teams to reduce worker waiting time and maximize hours of work. Repicking fields twice instead of three times—leaving more produce to pick on each pass through the field—can raise workers' piece rate earnings and reduce hours per acre.

Dwarf trees mean smaller ladders and faster picking, making fruit-harvesting jobs more attractive to women and older workers.

Slow-moving conveyor belts in front of workers reduce the need for harvesters to carry bags or trays of harvested produce, enabling them to pick faster. The machine sets the pace of work, so workers harvesting lettuce, broccoli, and other vegetables behind a conveyor belt are often paid hourly wages and offered a group bonus rather than individual piece rates. Strawberry pickers may work for individual piece rates with and without conveyor belts, but crews behind conveyor belts become more homogeneous as slower pickers drop out.

Substitution means replacing workers with machines. Many fresh fruits and vegetables are fragile, and human hands are gentler than mechanical fingers on fresh table grapes or peaches. Machines are fixed costs, and workers are variable costs, meaning that farmers of commodities with uncertain futures may be reluctant to invest in machines, as with smaller raisin grape growers and producers of traditional apple varieties. When there are profitable alternative crops, some farmers switch from hand-harvested to more mechanized crops, as from raisin grapes to almonds in the San Joaquin Valley.

Farmers anticipating too few seasonal workers have been able to supplement their workforces with legal guest workers under the 1917–21 and 1942–64 Mexico-U.S. Bracero programs and under the H-2 and H-2A programs since 1952 (Martin 2009). Receiving Department of Labor certification to employ H-2A guest workers requires employers to satisfy three major obligations: trying and failing to recruit U.S. workers, providing free and approved housing to guest workers, and paying the state or regional Adverse Effect Wage Rate—\$13.18 in California in 2018.

The H-2A program evolved from a World War II program that imported mostly Jamaicans to cut sugarcane in Florida and pick apples along the eastern seaboard. The program shrank after enactment of the Immigration Reform and Control Act of 1986 (IRCA), which imposed sanctions on U.S. employers who knowingly hired unauthorized workers (Martin 2014). The IRCA also legalized over 1.1 million unauthorized farm workers, three times the estimated number of persons who qualified by having done at least 60 days of farm work in 1985–86. Many of those who became immigrants via the Special Agricultural Worker pro-

gram used false documents, which created an industry to provide false documents to other unauthorized foreigners to satisfy the I-9 worker documentation requirements. In this way, the IRCA increased rather than decreased illegal migration (CAW 1992; Martin 1994).

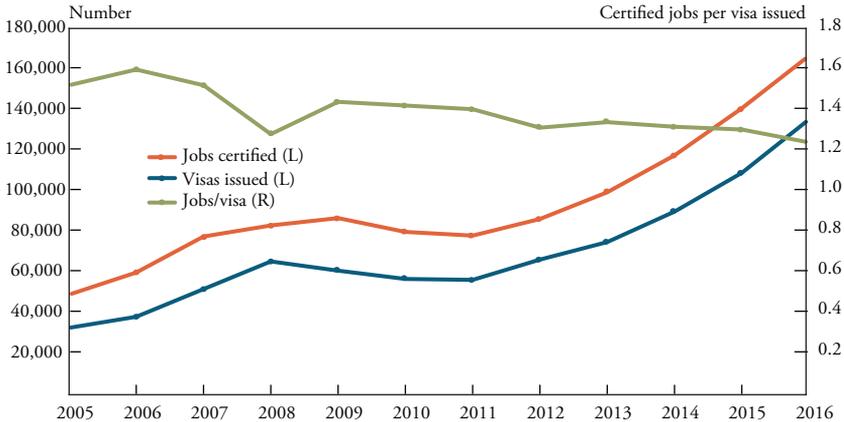
The IRCA helped to spread legal and unauthorized Mexican-born workers throughout U.S. agriculture (CAW 1992). Meanwhile, the Florida sugarcane harvest was mechanized in response to worker suits alleging underpayment of wage. Only 15,100 farm jobs were certified to be filled with H-2A guest workers in fiscal year 1995, including a quarter in tobacco (Martin 2004).

The H-2A program remained small and concentrated on the eastern seaboard until the 2007–09 recession, when the slowdown in unauthorized Mexico-U.S. migration prompted California and Washington farmers to request more H-2A workers (Chart 1). Over 200,000 farm jobs were certified to be filled with H-2A workers in fiscal year 2017, including almost 22,000 in berries, 12,700 in apples, and 12,500 in tobacco.

Most H-2A workers are in the United States less than the usual 10-month maximum stay permitted: at an average stay of six months, 200,000 H-2A jobs means that 100,000 or 10 percent of the million full-time equivalent jobs in U.S. crop agriculture are filled by H-2A workers. In the mid-1950s, when the employment of hired farm workers averaged 2 million, a peak 450,000 Bracero guest workers filled 20 percent of crop jobs. If the H-2A program continues to expand, H-2A workers will be a higher share of the farm workforce than Braceros were in the mid-1950s.

H-2A workers are brought into the United States through several mechanisms. The most common mechanism is direct employment, when a farmer works with a U.S. lawyer or agent to recruit guest workers abroad and transport them to the United States, making the farmer responsible for ensuring program regulations are followed. The second mechanism involves employer associations such as the NC Growers Association or the Washington Farm Labor Association recruiting and transporting H-2A workers, sometimes moving them from one farm to another to ensure H-2A workers are fully employed; in this mechanism, the association is jointly liable with farmers for violations of program rules. The third mechanism involves farm labor contractors

Chart 1
H-2A Jobs Certified and Visas Issued, 2005–16



Note: The number of jobs certified exceeds the number of visas issued because some H-2A workers fill more than one job, and some employers who are certified do not recruit all of the H-2A workers they could.

Sources: U.S. Departments of Labor and State.

such as Fresh Harvest moving H-2A workers from one farm to another. All three mechanisms are expanding.

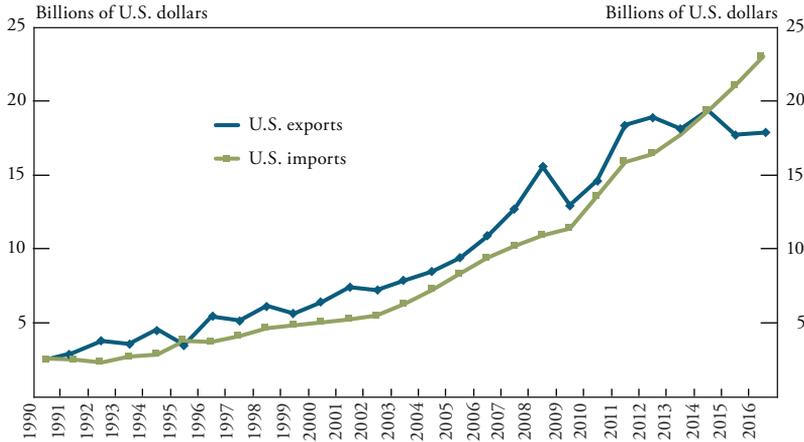
V. Imports

An alternative to producing labor-intensive commodities in the United States is importing them from lower-wage countries. About half of the fresh fruit and one-third of the fresh vegetables consumed in the United States are imported. Mexico accounts for about half of U.S. fruit imports and two-thirds of U.S. fresh vegetable imports, and since 2014, the United States has had an agricultural trade deficit with Mexico despite exporting \$4 billion worth of corn and soybeans in 2016 and \$2.5 billion worth of pork and dairy products.⁹ The leading U.S. imports from Mexico were fresh and frozen fruits and vegetables worth \$11 billion, representing almost half of the \$23 billion of U.S. agricultural imports from Mexico in 2016 (Chart 2).

Mexico's export-oriented vegetable agriculture has been transformed over the past two decades, in part with U.S. capital and expertise. Many Mexican growers have protected culture structures, growing berries, tomatoes, and other vegetables under metal hoops encased in plastic, reducing pest and disease problems; controlled entry and exit

Chart 2

Mexico-U.S. Agricultural Trade, 1990–2016



Source: U.S. Census Bureau.

reinforces worker adherence to food safety protocols. Yields are up to three times higher for crops grown under protected culture than those grown in open fields.

The North American Free Trade Agreement (NAFTA) accelerated the adoption of science-based standards to evaluate the risk of transmitting pests and diseases across the border and promoted rapid trans-border shipments of perishable commodities, encouraging some U.S. growers and packers to form partnerships with Mexican growers to produce for U.S. supermarkets. Supply chains are integrated in the sense that a U.S. grower-packer may sign a contract to supply produce year-round to a U.S. fast-food restaurant or supermarket chain and grow the requisite produce in both the United States and Mexico.

Immigration enforcement, NAFTA renegotiations, and guest worker bills pending in Congress could reshape the farm-labor landscape. The Trump Administration has stepped up border enforcement, which has reduced apprehensions of foreigners just inside the U.S. border. Increased efforts to detect and remove unauthorized foreigners convicted of U.S. crimes means that searches for criminals in immigrant neighborhoods may detect other unauthorized foreigners who have not been convicted of U.S. crimes, spreading fear in immigrant neighborhoods, especially when state and local police agencies coop-

erate with the federal Immigration and Customs Enforcement (ICE) agency. Farmers report that many of their workers stay home after ICE searches or news of police activity that could lead to their detection.

Candidate Trump called NAFTA “the worst trade deal ever negotiated by the U.S. government,” and President Trump threatened to withdraw the United States from NAFTA if Canada and Mexico refused to renegotiate the agreement, which went into effect in 1994. NAFTA promoted the integration of fruit and vegetable supply chains, and a revised NAFTA could slow the growth of Mexican fruit and vegetable exports.

The H-2A program could be modified by legislation. The House Judiciary Committee approved the Agricultural Guestworker Act (HR 4092) in October 2017 to make it easier for U.S. farmers to hire legal foreign farm workers. HR 4092 is included in the Securing America’s Future Act (HR 4760), which House Speaker Paul Ryan has promised to bring to the floor if it can win majority support among Republicans.

HR 4092 would replace the current H-2A program with a new H-2C program allowing up to 450,000 guest workers to be admitted each year, including 40,000 for meatpacking. The number of H-2C visas could rise by 10 percent in the next year if all visas were requested in the previous year. Currently unauthorized workers would have to return to their countries of origin and re-enter the United States with H-2C visas to be employed legally.¹⁰ Each H-2C visa would be valid for 24 months, so there could be 900,000 H-2C workers after two years.

Employers of H-2C guest workers, who could offer year-round farm or farm-related jobs in dairies, timber, food processing, and meatpacking, would attest to their need for guest workers after posting job vacancies with state workforce agencies. They would have to hire qualified U.S. workers until the date that their guest workers departed at their own expense for U.S. jobs. Employers would not have to provide H-2C guest workers with free housing while employed in the United States, but H-2C guest workers could switch to other employers after the E-Verify system to check the legal status of new hires became mandatory for all employers. Employers would have to pay H-2C workers at least 115 percent of the federal or state minimum wage, or \$8.34 an hour in states with the federal minimum wage of \$7.25.

HR 4092 is another in a long line of guest worker bills that aim to eliminate the need for farmers to use lawyers to hire foreign farm workers, but it is unlikely to be enacted. Democrats and worker advocates oppose ending current employer recruitment, housing, and Adverse Effect Wage Rate (AEWR) requirements; furthermore, some Republicans do not want to “reward” currently unauthorized workers with guest worker visas. Finally, many farm groups oppose the cap on admissions, arguing that 450,000 visas are insufficient.

VI. Farm-Related Workers

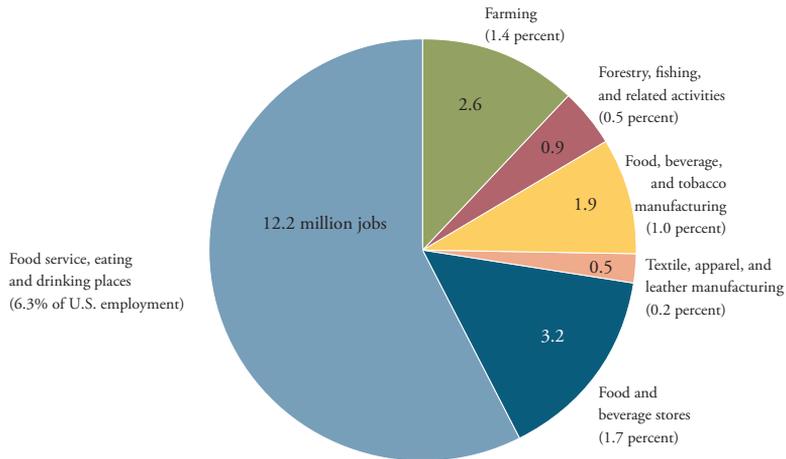
The U.S. food and fiber system includes over 21 million workers: many are employed in input industries that range from banking to equipment manufacturing to chemicals and fertilizer, many are employed on farms, and many are employed in output industries that include food and beverage manufacturing, transportation, food retailing and food service, and eating and drinking places. The USDA’s Economic Research Service (ERS) estimated that the average 2.6 million jobs on farms in 2016 accounted for one-eighth of the 21.4 million jobs in the food system; jobs in food service and eating and drinking places accounted for 57 percent of food-system jobs (Chart 3).

Some nonfarm businesses related directly to production agriculture hire workers who are similar to farm workers—that is, immigrants with few other U.S. job options. For example, workers employed in seasonal food-packing and -processing industries are often immigrants from Mexico or the children of such immigrants. Year-round meatpacking and dairy-processing firms employ more U.S. citizens and legal immigrants, including a significant number of refugees.

Over half of food system jobs are in food services, including restaurants and bars. The workers employed in these service industries include young adults working their first jobs in fast-food restaurants, many part-time workers employed in a wide array of casual and fine dining establishments, and food-preparation workers and cooks, some of whom are immigrants. As with production agriculture, many food-related industries offer jobs rather than careers, explaining high worker turnover and an employer focus on recruitment rather than retention.

President George W. Bush encouraged Congress to enact comprehensive immigration reform in 2006–07, and ICE mounted raids in

Chart 3.
U.S. Food System Employment, 2016



Source: USDA Economic Research Service.

meatpacking to check the legal status of workers to demonstrate seriousness about “closing the labor market door” to unauthorized workers. Six Swift & Company plants were targeted on December 12, 2008, and almost 1,300 or 20 percent of the 7,000 workers on the first shift at these plants were arrested. Swift and the United Food and Commercial Workers International Union, which represented workers at five of the six plants, denounced the raids, but Swift’s need to raise wages to resume operations and other issues led to its sale to JBS in July 2007 (Rural Migration News 2007).

VII. Conclusions

Hired farm workers do most of the work on U.S. farms, and their share of the workforce is rising as agriculture restructures into fewer and larger farms. The Census of Agriculture (COA) reported that over 600,000 farms paid wages to hired workers in 2012, but only one-sixth of these COA “farm employers” were registered with the UI system, which includes over 80 percent of hired farm workers.

Hired farm workers are mostly Mexican-born men who have settled in the United States and have families that often include U.S.-citizen

children. Few are willing to migrate from farm to farm seeking jobs, although the growing share of crop workers who are employed by FLCs must sometimes commute long distances to jobs from their homes to the jobs that have been arranged for them—sometimes two hours one way, as from Stockton to Napa, California. The children of farm workers educated in the United States rarely follow their parents into the fields for extended periods.

Rising farm wages and fewer flexible and unauthorized newcomers have encouraged many farm employers to adopt the 4-S strategies of satisfying their current workers to retain them, stretching them with mechanical aids, substituting machines for workers, and supplementing current workers with H-2A guest workers. The most viable long-term strategies are mechanization and guest workers, although trade policies could spur or shrink imports of labor-intensive commodities.

Nonfarm businesses that process and pack farm commodities hire workers who are similar to farm workers, but the workforces in year-round farm-related jobs include higher shares of U.S. citizens and legal immigrants such as refugees. Workers in seasonal food packing and processing industries are more similar to farm workers.

Endnotes

¹The next largest bilateral migration flows involve 2 to 3 million migrants from Turkey to Germany, Kazakhstan to Russia and Russia to Kazakhstan, China to Hong Kong, and India to the United Arab Emirates.

²Developing countries led by India aimed to reduce barriers to the “movement of natural persons” who provide services over borders in the GATS negotiations’ so-called Mode 4 provision of services by exempting migrant service providers from minimum wage and payroll tax obligations. These countries also called for an end to economic needs tests that give local workers first priority for vacant jobs. Industrial countries rejected these requests, making exceptions for intracorporate transfers of managers and skilled workers between subsidiaries of multinational corporations.

³For a critique of GCM recommendations five and six see <https://migration.ucdavis.edu/rmn/blog/post/?id=2163>

⁴California requires all agricultural employers to cover their workers under unemployment insurance.

⁵Federal law has since 1978 required farms employing 10 or more workers for 20 weeks in a year, or paying \$20,000 in wages in a quarter, to register and pay UI taxes on their employees’ wages. Some states including California require smaller farm employers to register and pay UI taxes. The BLS estimates that average employment in U.S. agriculture (NAICS 11) was 1.6 million in 2016; 81 percent of these workers were covered by the UI system.

⁶Primary farm workers were those with their highest earnings in agriculture in 2015. Some 136,000 workers had at least one farm job in 2015 but had their highest earnings in a nonfarm job.

⁷Martin (2017) includes a more complete analysis of NAWS data.

⁸Data from Table 33 of the forthcoming 2017 DHS Yearbook of Immigration Statistics.

⁹These commodities were one-third of the \$18 billion of U.S. agricultural exports to Mexico in 2016.

¹⁰Currently unauthorized workers would have a year after enactment to satisfy this touch-back requirement, and could receive pre-approval for re-entry with the support of their current farm employer.

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